

METROL

FLOW-SURE BV™

THE WIRELESS BALL VALVE FROM METROL

The FLOW-SURE BV "FS-BV" is a Wireless controlled Ball Valve.

DESCRIPTION

FLOW-SURE denotes an intelligent, wireless basis from which Metrol's premium flow control products have been designed. All FLOW-SURE tools deliver advanced wireless diagnostics and feedback on valve position. Metrol's FLOW-SURE, downhole valves have reliably enabled multi-zone DST's since 2002, with over 500 wireless valve moves to date.

The FS-BV is a full-bore Ball Valve with primary metal-to-metal sealing and wireless control enabled by Metrol's field proven PARAGON wireless telemetry system.

By referencing hydrostatic, the tool can be operated without pressure pulses at any time, eliminating potential conflict with other pressure operated tools.

The FS-BV is mainly for used as an isolation valve as part of the abandonment barrier envelope and flow control in multi-zone DST operations. It's suitable for LPLT, HPHT and harsh environments.

FEATURES

- > Configurable rupture disc override
 - o Override position closed or open
 - o Internal, external, or blanked rupture disc
- > Multiple valves can be run in the same completion design, for full zonal flow control
- > Modular control system also available as a Dual Valve (FS-DV) or Multi-Cycle sleeve (FS-MC)
- > Large number of actuations possible, determined by version
- > Annulus rupture disc override (virtual option available)
- > Two independent control systems, for full redundancy and reliable performance
- > Wireless, confirmation of command of command execution enabling confidence and valve position extended pressure build ups post DST
- > Qualified to ISO28781 V1 for subsurface barrier valves
- > In hole power management and control

BENEFITS

- > Up to 24 hours of rig time saved by removing need for wireline isolation
- > Valve position sensors providing fast, accurate decision making
- > Superior data quality by protecting long term gauges from well kill operation
- > Improved string design redundancy, acts a secondary reservoir shut in valve
- > Earlier delivery of long-term pressure build up data, enabling earlier subsurface development decisions
- > Positioned below the packer, reduces wellbore storage and eliminates data noise due to DST string movement



Qualification: ISO28781 V1 for subsurface barrier valves.
Battery life: Dependent on Well and operational conditions - Contact Metrol
Specifications subject to change without notice.

Discover more: metrol.co.uk

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SPECIFICATIONS

Version	FS-BV L	FS-BV H	FS-BV LHT	FS-BV HHT
Temperature Rating	150°C [302°F]	150°C [302°F]	175°C [347°F]	175°C [347°F]
Max O.D	5.5" [139.7mm]	5.5" [139.7mm]	5.5" [139.7mm]	5.5" [139.7mm]
Max I.D	2.25" [57mm]	2.25" [57mm]	2.25" [57mm]	2.25" [57mm]
Length	24.18ft [7.37 m]	24.18ft [7.37 m]	24.18ft [7.37 m]	24.18ft [7.37 m]
Ball Valve Cycles	30 cycles [60 moves]	45 cycles [90 moves]	30 cycles [60 moves]	45 cycles [90 moves]
Maximum Absolute External Pressure	12,000 psi [83 MPa]	21,000 psi [145 MPa]	12,000 psi [83 MPa]	21,000 psi [145 MPa]
Maximum Absolute Internal Pressure	16,000 psi [110 MPa]	21,000 psi [145 MPa]	16,000 psi [110 MPa]	21,000 psi [145 MPa]
Maximum Differential Pressure	10,000 psi [69 MPa]	17,500 psi [121 MPa]	10,000 psi [69 MPa]	17,500 psi [121 MPa]
Maximum Working External Pressure	10,000 psi [69 MPa]	17,500 psi [121 MPa]	10,000 psi [69 MPa]	17,500 psi [121 MPa]
Maximum Working Internal Pressure	13,500 psi [93 MPa]	17,500 psi [121 MPa]	13,500 psi [93 MPa]	17,500 psi [121 MPa]
Maximum Differential Across Ball	10,000 psi [69 MPa]	10,000 psi [69 MPa]	10,000 psi [69 MPa]	10,000 psi [69 MPa]
Ball Opening Differential	5,000 psi [35MPa]	5,000 psi [35MPa]	5,000 psi [35MPa]	5,000 psi [35MPa]
Min. Hydrostatic Required	1,200 psi [8.3 MPa]	2,500 psi [17 MPa]	1,200 psi [8.3 MPa]	2,500 psi [17 MPa]
Tensile Rating	316,000 lbf [1,406 kN]	316,000 lbf [1,406 kN]	316,000 lbf [1,406 kN]	316,000 lbf [1,406 kN]
Compression Rating	316,000 lbf [1,406 kN]	316,000 lbf [1,406 kN]	316,000 lbf [1,406 kN]	316,000 lbf [1,406 kN]
Service NACE MR-0175	H2S, acid	H2S, acid	H2S, acid	H2S, acid
Connection Type	3.5" 15.8# PH6	3.5" 15.8# PH6	3.5" 15.8# PH6	3.5" 15.8# PH6

